ABSTRACT

A reducing mill according to the invention includes a plurality of stands disposed along a rolling direction line, in which a tube is rolled through the plurality of stands along the rolling direction line. The stands each include n rolls ($n \geq 3$) disposed around the rolling direction line, and the n rolls are disposed shifted by 180°/n around the rolling direction line from n rolls included in a preceding stand. The n rolls included in each of the plurality of stands excluding the last stand each have a groove having an arch shape in cross section. The bottom of the groove has a circular arc shape around the rolling direction line having a first radius in cross section, and the distance between the surface of a roll flange portion positioned between the bottom and the edge of the groove and the rolling direction line is longer than the first radius, and the distance between the edge of the groove and the rolling direction line is longer than the first radius in the groove of a roll included in the preceding stand. Therefore, the reducing mill according to the invention allows both polygon formation and roll edge marks to be suppressed.